Food Safety
at
Community Events

Department of Resource Management
Environmental Health Services Division
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Goal

- The goal of this Temporary Food Facility Training is to assist the Community Event Organizers and temporary food facility operators (food vendors) in handling food safely at community events in Solano County.
- Once you have completed this training you will know what is required to setup a food booth at a community event and serve food safely.

Foodborne Illness

- Foodborne illness often presents itself though flu like symptoms such as:
  - Nausea
  - Vomiting
  - Diarrhea
  - Fever

- Thoroughly cooking animal products and maintaining cooked food at proper holding temperatures can prevent many foodborne illness.

Factors Contributing To Foodborne Illness Outbreaks

The Center for Disease Control has identified the following factors as being most important to contributing to foodborne illness:

1. Improper holding temperature.
2. Inadequate cooking.
3. Poor personal hygiene of food handlers.
4. Contaminated food or equipment.
5. Food from unsafe sources.

ADDRESSING RISK FACTOR NUMBER 1: IMPROPER HOLDING TEMPERATURE

Allowing food to be in the **Danger Zone** for too long or not cooking animal products to a temperature that will kill bacteria are the main reasons people get sick.

Question 1: What is the major cause of foodborne illness?

a.) Improper holding temperature.

b.) Food from an unsafe source.

c.) Physical and chemical contamination.

d.) Poor personal hygiene.

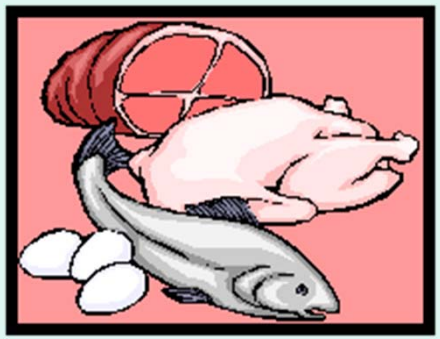
Food Protection

- Food must be properly handled because bacteria may be present on products when you purchase them.
- Foods, including safely cooked, ready-to-eat foods, can become cross contaminated with bacteria transferred from raw products, meat juices or other contaminated products, or from food handlers with poor personal hygiene. So, you need to control the conditions that enable bacteria to grow and multiply.

Bacteria need:

1. Moist, protein-rich food
2. Temperature range: 41º F- 135° F
3. Time to grow: 2 Hours

Moist, protein-rich foods are called Potentially Hazardous Foods (PHFs).



Examples of PHFs:

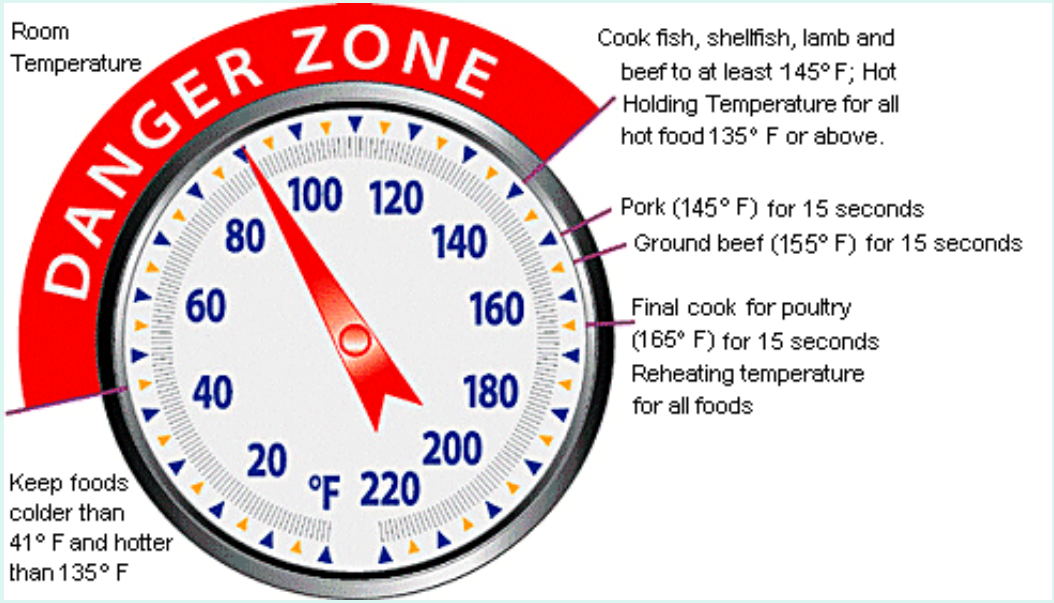
- Cooked meat products such as stews, gravy, and soups made with meat or meat stock
- Meat and poultry, both raw and cooked
- Fish, shellfish and other seafood
- Cooked rice, beans and pasta
- Baked potatoes, cooked corn-on-the cob
- Raw seed sprouts
- Cut melons & cut tomatoes

Examples of nonPHFs:

- Raw uncut vegetables, except spouts
- Uncut fruits
- Breads
- Meat jerky
- Candy
- Uncooked rice, beans, and pasta

The Danger Zone

Bacteria multiply faster in a specific temperature range. **This temperature range is 41°F to 135°F and is called the Danger Zone.** So you need to minimize the time food is in the Danger Zone.



Time/Temperature Principle

The time/temperature principle describes the relationship between the growth of bacteria that are in food and the length of time food remains in the Danger Zone. Bacteria kept below 41°F or above 135°F will not necessarily die but their growth will be slowed significantly.

Temperature/Time Abuse Is The #1 Cause of Foodborne Illness

If food has been sitting out at room temperature for up to 2 hours, refrigerate it or rapidly reheat it to 165° immediately. After food has been sitting longer than 2 hours there could be a high number of bacteria, so throw it out.

Question 2: The “danger zone” for food is the temperature range between 41°F-135°F.

True

False

Keep Food Safe By:

1. Keep cold foods at 41°F or below until it is needed for preparation or serving.

2. Keep hot foods at 135°F or higher until served.

3. Reheat cooked foods to 165°F or higher.

Question 3: What do bacteria need to grow?

a.) Potentially hazardous food.

b.) Proper temperature 41°F - 135°F.

c.) Sufficient time to grow (2 hours).

d.) Moisture.

e.) All of the above

Food Purchase and Transportation

- The safest way to operate a food booth is to purchase the food on the day of the event.
- Take all food directly to the booth for preparation or sale.
- Any preparation must be done in the booth or at an approved kitchen, such as a restaurant, school or church kitchen – not in a private home.

Exception

- Nonprofit charitable organizations or clubs or organizations operating under authorization of a school or educational facility for fund raising purposes may sell or give away non-potentially hazardous (not perishable) baked goods and beverages prepared in a private home. All food preparation must be done in a sanitary manner to prevent contamination of the food product and protect public health.

Transporting Cold Foods in an Ice Chest

- Transport cold foods in an ice chest from a restaurant or other approved kitchen.
- Ensure the level of ice is equal to the level of food instead of placing food on top of ice.
- Maintain cold food at 41º F or lower.

Question 4: Refrigerated foods should never be held above:

a.) 41°F

b.) 50°F

c.) 55°F

d.) 60°F

Transporting Hot Foods in an "Ice" Chest

1. Pre-heat the ice chest by filling with hot water; let stand for 5 – 10 minutes.
2. Discard the hot water.
3. Place the containers of hot food into the ice chest and cover immediately.
4. Transport quickly to the event site.
5. Move food items into approved hot holding container. Maintain hot food at 135º F or higher.

Immediately Transport Foods to the Booth

- When transporting food from one location to another keep it well covered to prevent contamination and provide adequate temperature control of the foods.
- Use a thermometer to verify temperatures.

Question 5: The safest way to operate a food booth is to purchase the food on the day of the event from a grocery store, or purchase prepared food from a restaurant and take it directly to the booth for resale, or use a school or other approved kitchen to prepare food.

True

False

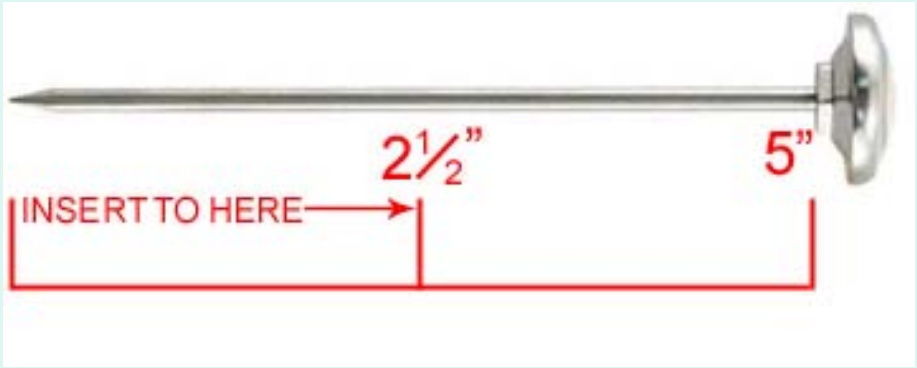
Thermometers Must Be Accurate To Within + or - 2º F

To ensure that potentially hazardous foods are held and cooked to the proper temperature, **the thermometer is one instrument food handlers cannot do without.**

Thermometers cont.

Before inserting the thermometer into the food, wash, rinse and sanitize the stem section (sanitizing methods will be discussed later in the training).

The sensing area of thermometers is ½ inch to 2 inches long as noted on the picture below, and this area must be inserted into the deepest part of the food.



The stem of a bimetallic thermometer must be placed at least 2.5 inches deep in the food.

Using a Thermometer

- To use a thermometer to check meat, insert it through the fat side of the meat, being careful not to touch bone.
- When checking the temperature of a hamburger place the thermometer through the side of the patty.

Hot Holding

- Cooked food must be held at 135°F or higher.
- Food may be held in chafing dishes, steam tables, and slow cookers.
- Hot holding equipment must be capable of maintaining the internal temperature of potentially hazardous foods at 135°F or above during service, display or holding periods.

Hot Holding cont.

- Use a probe thermometer to verify proper food temperature.
- Leftovers may not be used in the booth.
- Hot held foods that have not been used by the end of the day must be discarded.

Cold Holding

- Cold foods must be held at 41ºF or below, except cold holding at or below 45ºF for up to 12 hours during food booth operation is allowed if perishable food is disposed at end of the day.
- Mechanical refrigeration is preferred. However, an ice chest with ice from an approved source may be used (i.e. store bought, bagged ice).
- Provide sufficient ice so the level of ice is equal to the level of food instead of storing food on top of ice.

Question 6: Hot foods should be held at or above:

a.) 70°F

b.) 125°F

c.) 130°F

d.) 135°F

Cooling PHF Foods for Next Day Use

- Potentially Hazardous Food (PHF) that was held at 45°F, or at or above 135°F, during food booth operation cannot be cooled and stored for re-use on another day. It must be discarded.

- PHF held at or below 41°F during food booth operation may only be held for use on another day if placed in mechanical refrigeration at an approved permanent facility. Prior approval from the Environmental Health Services Division must be obtained.

ADDRESSING CDC RISK FACTOR NUMBER 2:

INADEQUATE COOKING

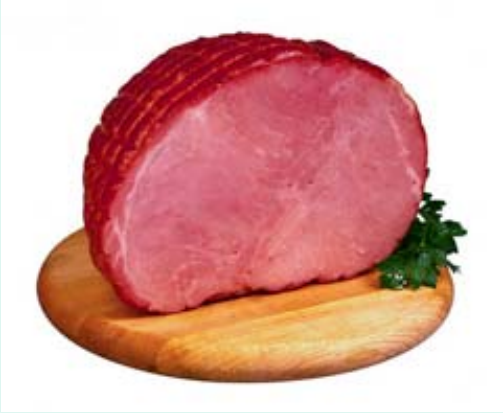
Thoroughly Cook All Meat

- Cooking at high temperatures kills most bacteria.
- Verify the proper temperature is attained by using your probe thermometer.

All parts of cooked, potentially hazardous foods must reach an internal temperature as shown:

Poultry: 165°F or Higher

Pork: 145°F or Higher



Safe Cooking Temperatures cont.

Eggs and Foods Containing Raw Eggs:
145°F or Higher

Ground meat:
158°F or Higher

Safe Cooking Temperatures cont.

For Hot Holding:

Reheat to 165°F

Question 7: Hamburger patties should be cooked so the minimum temperature in the center of the meat is:

a.) 140°F

b.) 147°F

c.) 150°F

d.) 158°F

ADDRESSING CDC RISK FACTOR NUMBER 3: POOR PERSONAL HYGIENE OF FOOD HANDLERS

A sick person may not work with food.

Food handlers with the following symptoms may not work with food:

- Upset stomach, nausea, or vomiting.
- Sore throat or sinus infection.
- Coughing, sneezing, or runny nose.
- Diarrhea
- Fever
- Open cuts on hands.

Proper hand washing is the most effective way to prevent contamination of food through contact.

Five Easy Steps To Effective Hand Washing

Step 1

Use warm water to wet your hands

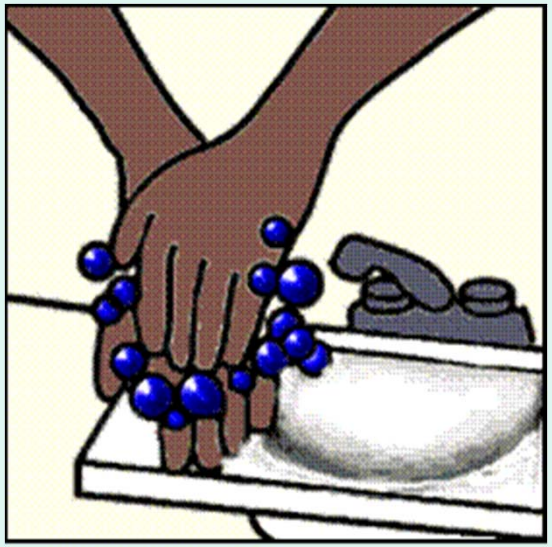
Step 2

Work up a good lather with soap

Handwashing cont.

Step 3

Rub Hands together for 20 seconds



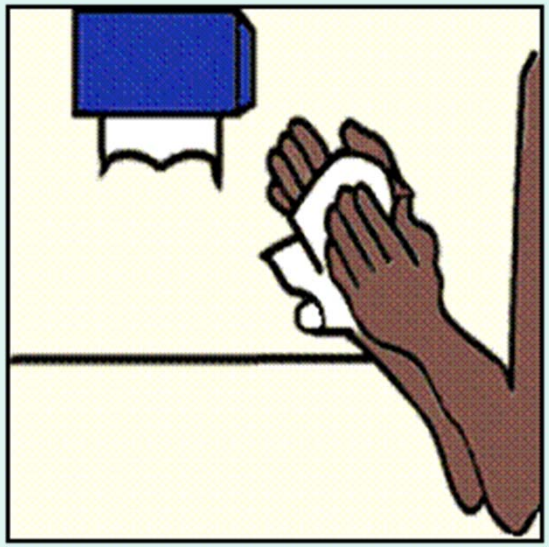
Step 4

Pay extra attention to the nail area and the area between the fingers.

Handwashing cont.

Step 5

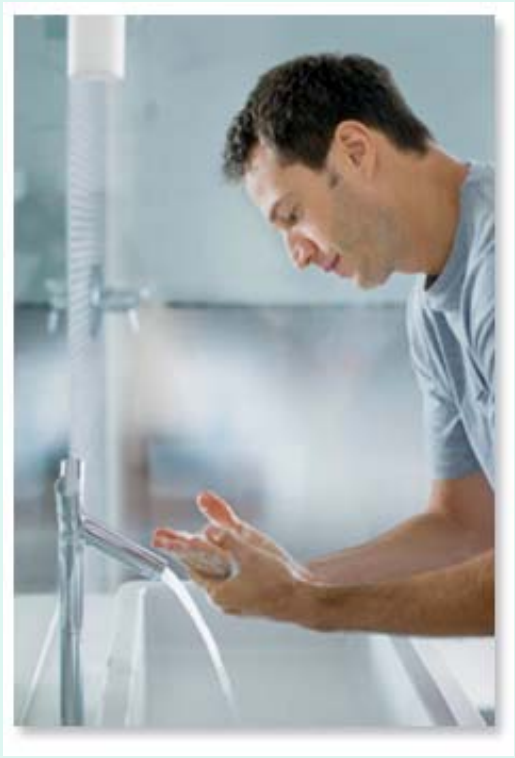
Dry with a dispensed, single-use towel



Never dry your hands on your clothing, apron, uniform or cloth towel.

When to Wash Your Hands:

- **Before beginning work**



- **After using the restroom**

When to Wash Your Hands:

- **After touching uncooked meat**

- **After touching hair, skin, eyes, nose, mouth, etc**

When to Wash Your Hands:

- **After eating, drinking, or using tobacco products**

- **After sneezing, coughing, or blowing your nose**

When to Wash Your Hands:

- **After handling any used or soiled utensils or equipment**

- **After handling or moving any trash or garbage**

When to Wash Your Hands:

- **After doing any cleaning activities**

- **After touching unwashed produce**

Gloves Are Required when handling open foods and especially if:

- **Your nails are polished, artificial, rough, or long**

- **Jewelry, other than a plain band ring, is worn**

- Wash your hands before putting on gloves.
- Wash them again after removing the gloves.
- Change gloves anytime they become contaminated or damaged.

Question 8: Hand washing is one of the most important things a food handler can do to stop people from getting sick. The most important part of the hand washing process is the:

a.) Kind of soap that is used.

b.) Temperature of the water being used.

c.) Scrubbing of the hands.

d.) Use of a nailbrush.

Hand Washing Facility

An accessible hand washing setup will encourage hand washing and help to eliminate bacteria and viruses on your hands, which can get into food and make people sick.

Hand Washing Facility Requirements:

1. Booths that handle only prepackaged food such as bottled or canned beverage, chips, candy bars, etc. do not require a hand washing setup.
2. Booths in which open food is handled are required to have a hand washing facility located inside the booth.
3. Each hand washing facility shall be equipped to provide warm running water, hand soap, single-use paper towels and a waste container to catch the wastewater.

Hand Washing Facility Requirements cont:

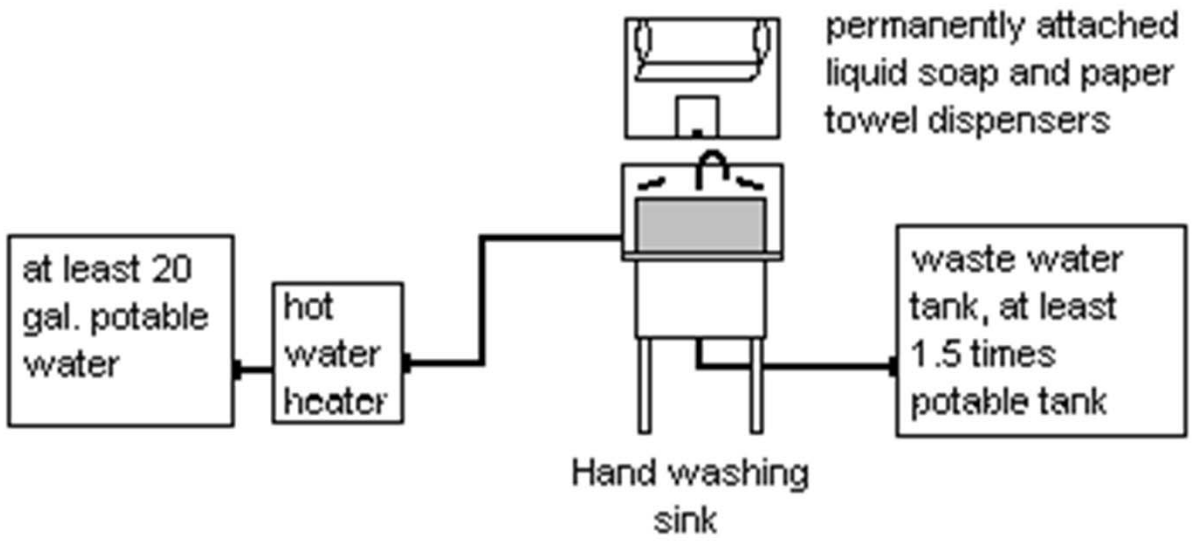
4. At least 5 gallons of water must be provided to each booth requiring hand-washing facilities

5. Approved hand washing facilities must be provided within or immediately adjacent to food handler restrooms.

6. The specific equipment necessary for the hand-wash facility will depend on the duration of food service.

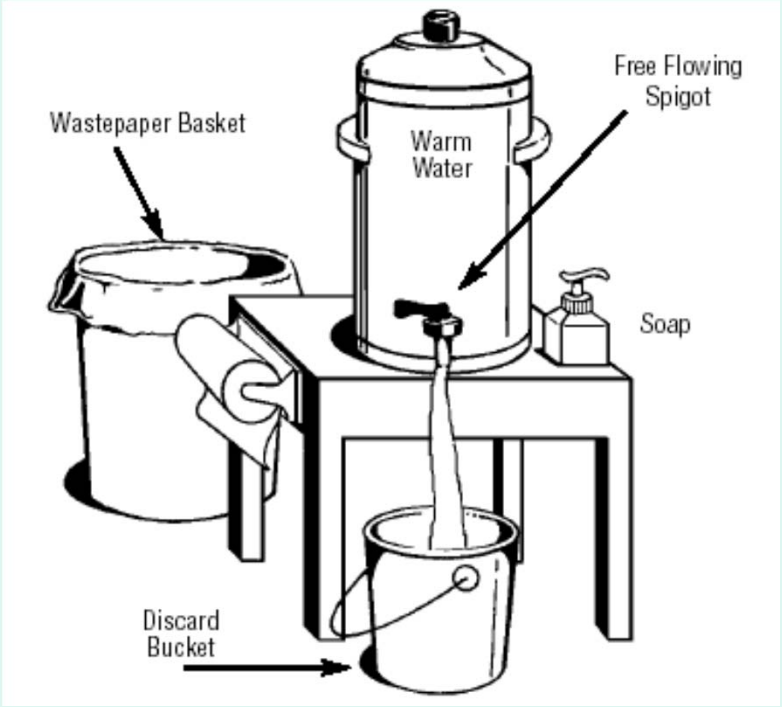
Hand Washing Facility Requirements

Example of hand washing sink for event lasting 4 or more days.



Alternative Handwashing Facility

For events lasting 3 days or less.



ADDRESSING CDC RISK FACTOR NUMBER 4: CONTAMINATED FOOD OR EQUIPMENT

Cross-Contamination

- Contamination of food or equipment such as work surfaces, cutting boards, utensils, and dishes by transferring bacteria to them is referred to as cross contamination.
- Ensure food contact surfaces are clean and sanitized regularly after coming into contact with food or food related products.

Preventing cross contamination is one step to help eliminate foodborne illness

There are three (3) main ways cross contamination can occur:

Food to Food

Bacteria from one type food can contaminate another food. Some examples are:

1. In a refrigerator, meat drippings from raw meat stored on a top shelf might drip onto cooked or ready to eat vegetables placed on a lower shelf.

2. A cooked hamburger patty placed back in a container with raw patties may be contaminated by raw meat juices.

People to Food

People can also be a source of cross contamination to foods. Some examples are:

1. Handling foods after using the toilet without properly washing your hands.

2. Touching raw meats and then preparing vegetables without washing hands between tasks.

3. Using an apron to wipe your hands between handling different foods, or wiping a counter with a towel and then using the towel to dry your hands.

Equipment to Food

Contamination can also be passed from kitchen equipment and utensils to food. Some examples are:

1. Using unclean equipment such as slicers, can openers and other utensils to prepare food.

2. Reusing cutting boards or the same knife when cutting different types of foods, such as cutting raw chicken followed by salad preparation.

3. Placing a cooked product, such as chicken on the plate used for the raw product.

Preventing Cross Contamination

Follow these steps to prevent cross contamination and reduce hazards to food:

1. Wash your hands in between handling different foods.

2. Wash and sanitize all equipment and utensils that come in contact with food.

3. Avoid touching your face, skin, and hair or wiping your hands on soiled cleaning cloths.

4. Store foods properly by separating washed or prepared foods away from unwashed or raw foods.

5. Store food and food-related items 6 inches off the ground on tables, shelving or on pallets.

6. Condiments must come individually wrapped or containers must be the pump type, squeeze containers, or have self-closing covers.

Question 9: Cross-contamination can be prevented when:

a.) Food contact surfaces are washed, rinsed, and sanitized.

b.) Proper hand washing procedures are followed.

c.) Raw foods are prepared and stored separately from prepared food.

d.) All of the above

CLEANING

- Customers expect food booths to be clean and assume that you will handle their food safely.

- A clean and organized booth creates a good impression and helps to make a safe, pleasant environment for everyone.

SANITIZING

Sanitizing is the reduction of bacteria and viruses to a low, safe level. This can be achieved by the use of chemical sanitizers.

Two common sanitizers used in food booths are:

- Those with Chlorine (examples Clorox, Purex)
- Those with Quaternary Ammonia (“Quats”)

Chlorine

- Chlorine is the most commonly used sanitizer.
- It kills most of the disease-causing bacteria and viruses that washing and rinsing leave behind.
- To prepare a sanitizing solution with the approved concentration of chlorine-base chemical sanitizer you first need to know the proper level of chlorine.

Chlorine solution

- For a chlorine based sanitizer this level is 100 parts per million (ppm).

- This ppm is a ratio of water and sanitizer, which has been determined to be an adequate level to sanitize food contact surfaces.

Example:
To prepare a solution of 100 ppm concentration of available chlorine use the following sanitizer to water ratio:

When using a 5.25% sodium hypo-chlorite liquid chlorine (commercial grade, non-perfumed) add 1 Tablespoon (or 1/2 oz) per gallon of warm water.

Chlorine solution cont.

- Stir the sanitizer and water solution and dip a test strip paper into the diluted chlorine solution.
- Remove and compare to color chart at once.
- It must read 100 ppm. See below for color code:

This process must be repeated every time a sanitizer is prepared for use.

Quaternary Ammonia (“Quats”)

- For a Quaternary Ammonia (Quat) solution the approved level of concentration is 200 ppm.
- Like the chlorine solution this can be achieved by diluting the sanitizer with water.
- The amount of sanitizer will vary based on type of "Quat" (liquid, powder or solids).
- The level can be verified by using a test strip.

Required Sanitizer Concentrations and Contact Times:

For chlorine sanitizer ensure the utensils are submerged in the sanitizer for a minimum of 30 seconds.

- Chlorine: 100 ppm for 30 Seconds

For “Quat” sanitizer ensure the utensils are submerged in the sanitizer for 60 seconds.

- “Quat”Ammonia: 200 ppm for 60 Seconds

Question 10: A sanitizer must be carefully measured and added to a certain amount of water. A test strip should be used to check the final concentration. These things should occur:

a.) In order to reduce the cost of sanitizer use.

b.) Every time a sanitizer solution is prepared for use.

c.) In order to prevent chemical burn.

d.) Every time you use a new kind of sanitizer.

Cleaning Cloths

- Cleaning cloths and a sanitizer solution must be used and kept inside the booth.

- To maintain the cleaning cloth in working condition you must do the following:
  - Store in a bucket with sanitizing solution when not in use.
  - Use separate cloths & sanitizing solutions for raw food contact surfaces & separate clothes for ready to eat food contact surfaces.
  - Replace the sanitizing solution when it becomes cloudy.

Question 11: What is the proper way to store cleaning cloths?

a.) In a sanitizing solution.

b.) On the floor under shelves.

c.) On a hook in the food booth.

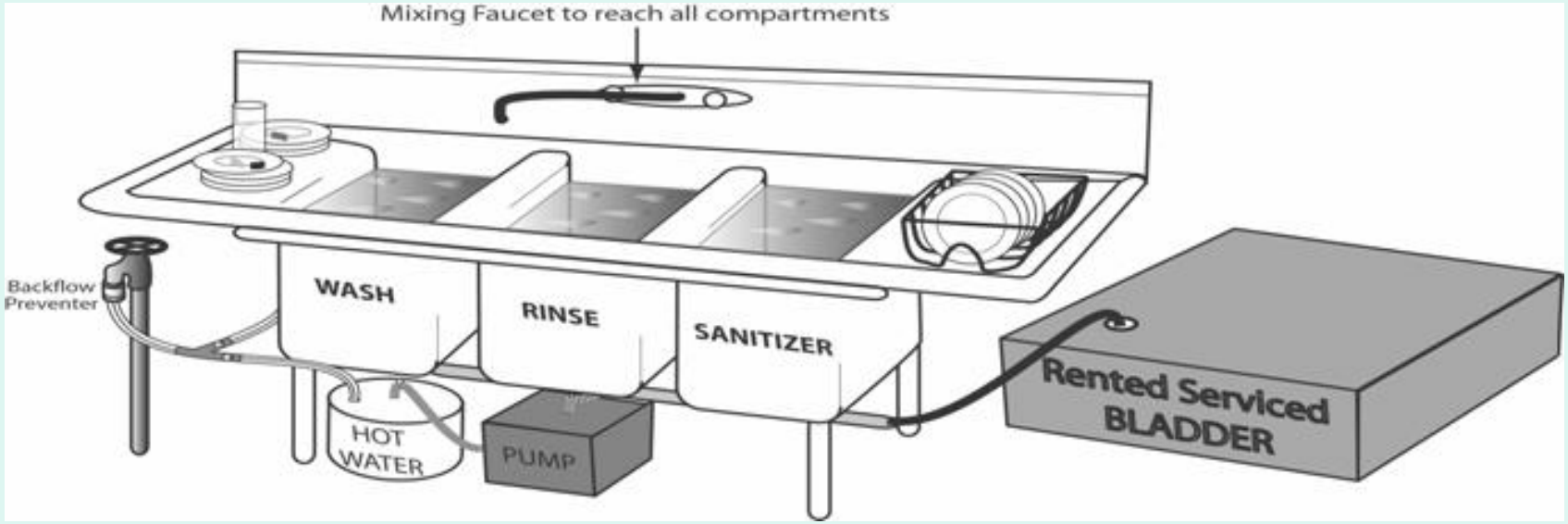
d.) In flatware drawers.

Utensil Washing

- Utensils and cutting boards must be properly washed, rinsed and sanitized.
- For an event lasting four or more days, a three compartment sink either within the booth or shared by up to 4 booths handling open food is required. If shared, the sink must be adjacent to the booths.
- The 3-compartment sink may be placed outside the booth but within its own enclosure.
- The 3-compartment sink must have two drain boards. The first drain board is to be used for soiled utensils. The second drain board is to be used for air-drying clean, sanitized utensils.

Utensil Washing cont.

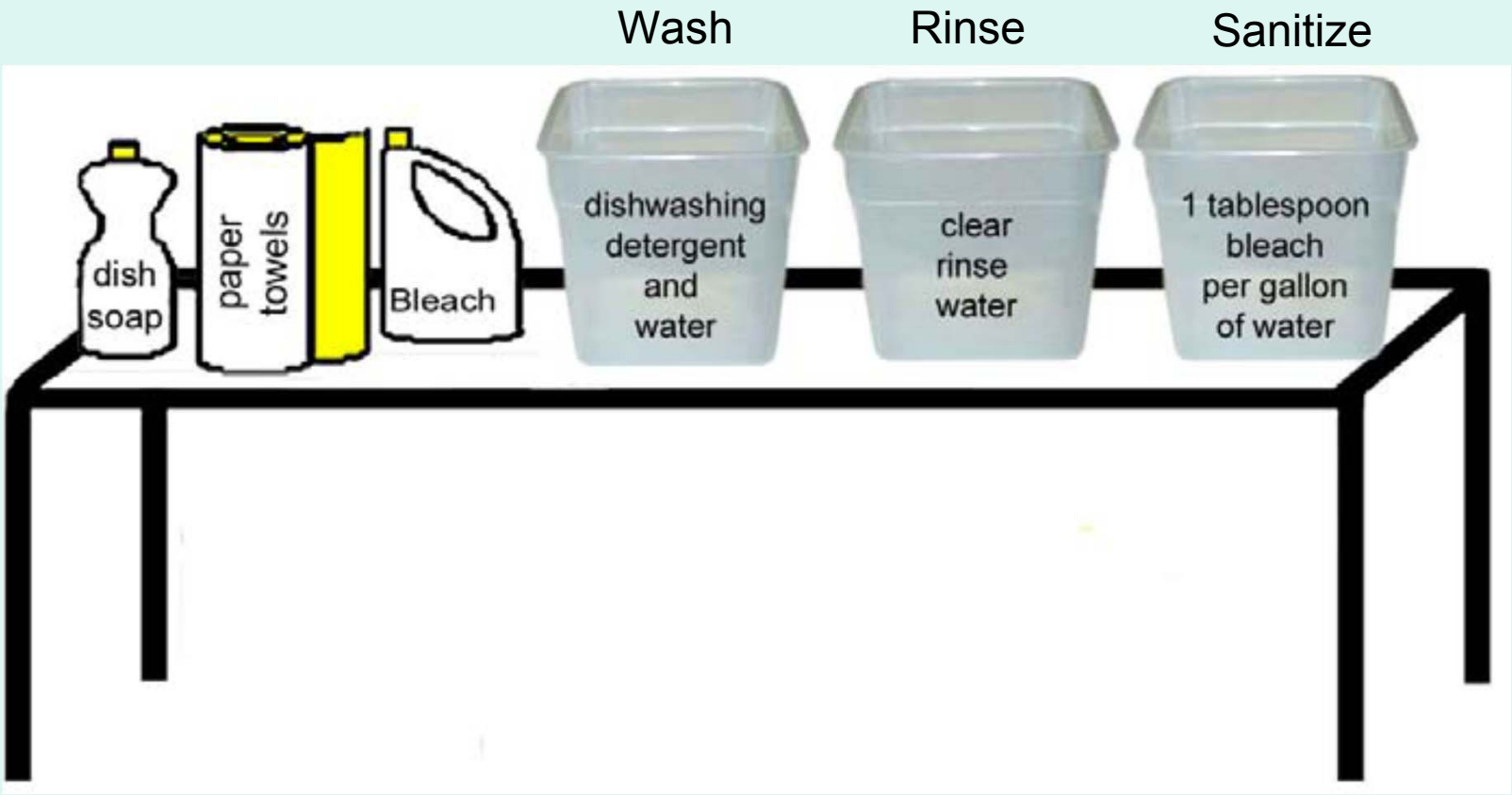
- The first sink compartment will hold hot, soapy water and be used to wash utensils.
- The second sink compartment will hold clear warm water and be used to rinse utensils.
- The third sink compartment will hold water mixed with sanitizer and be used to sanitize utensils. For 100 ppm of chlorine, submerge utensils in the sanitizer for 30 seconds. If 200 ppm of “Quat”, submerge utensils in the sanitizer for 60 seconds.



Alternative Utensil Washing

- If event is 3 days or less, alternate utensil washing facilities are approved for use. Supplies you will need include:
  - **Sanitizer**
  - **Dishwashing detergent**
  - **Paper towels**
  - **Three containers of water large enough to fit largest utensil (5 gallon buckets minimum).**
    - One container contains soapy water for washing.
    - One container contains clean water for rinsing.
    - One container contains a sanitizer & water solution for sanitizing.
- Water and containers should be kept clean at all times.

Alternative Utensil Washing



Question 12: Sanitize utensils, cutting boards, counters, tables and equipment using chemicals such as:

a.) Baking soda

b.) Ethyl alcohol

c.) Chlorine/”Quat” Ammonium

d.) All of the above

Physical Contamination

Physical hazards include dirt, hair, broken glass, shell or bones, and other objects. The following are food safety controls:

- Clean can openers before and after each use.
- Do not use glass to scoop ice (use food grade scoops).
- Do not chill glasses or food items in the ice that will be used for drinks.
- Maintain nonfood items separate from food and food related surfaces.
- Do not store toothpicks or non-edible garnishes on shelves above food storage or preparation areas.

Chemical Contamination

Chemical hazards include: detergents, cleaning and sanitizing agents and other similar chemicals. The following are food safety controls:

- Carefully measure chemicals.
- Keep chemicals labeled and follow label directions for storing and using chemicals.
- Store chemicals in their original containers. Keep them separate from and below food or food related surface areas.
- Never use food containers to store chemicals, or chemical containers to store food. Empty chemical containers must be properly discarded.

ADDRESSING CDC RISK FACTOR NUMBER 5:
FOOD FROM UNSAFE SOURCES

- Food obtained from an unknown source or an unpermitted facility runs a higher risk of being contaminated.

- Ensure food has been purchased from approved sources which are inspected by the County Environmental Health Division such as a grocery store, restaurant, or a school kitchen.

ADDRESSING CDC RISK FACTOR NUMBER 5:

FOOD FROM UNSAFE SOURCES

NO FOOD SHALL BE PREPARED OR STORED IN A PRIVATE HOME.

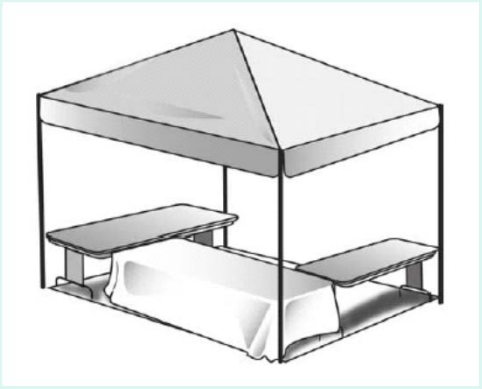
Exceptions for non-profit charitable organizations:

- **Non-potentially hazardous baked products prepared at home, (such as cookies or muffins).**
- **Non-potentially hazardous, prepackaged food stored at home (such as store bought cookies and soda).**

Enclosure Requirements

All food booths require a cleanable floor material and overhead protection.

- Required even if all food is prepackaged.
- Cleanable floor material. Plywood, tarp, rubber mats or other materials approved by the Environmental Health Services Division may be necessary if the booth is operating on grass, dirt, or uneven hard surface.
- Overhead protection, such as a canopy.

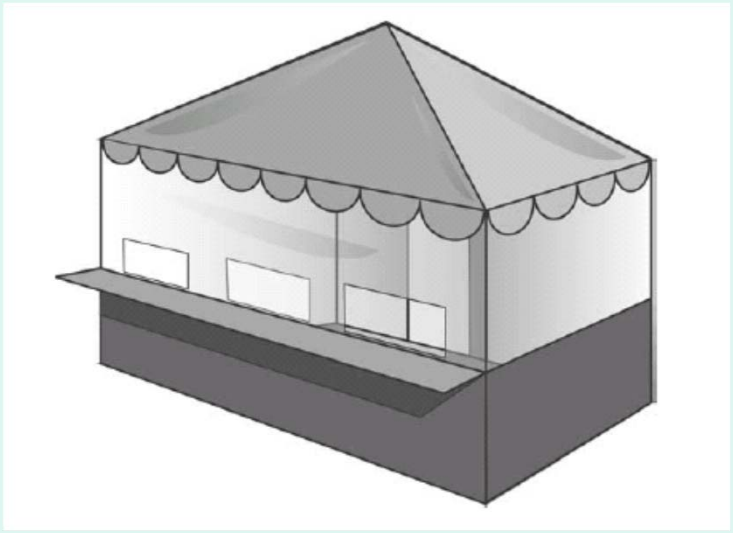


Enclosure Requirements

The preparation of food that involves cutting, chopping, mixing, assembling, or cooking needs to be performed inside a fully enclosed booth. An acceptable booth consists of the following:

1. Four fly-proof screened sides such as canvas, plywood, or fine-mesh fly screening (at least 16 mesh).
2. A water repellent roof. Screening shall only be acceptable as a ceiling above cooking equipment when necessary for ventilation.
3. Fly-proof pass-thru openings. Doors and food service openings need to seal tightly. Food service opening should not exceed 12” x 18”.
4. Non-combustible construction materials, as required by the Fire Department.

Example of approved booth:



Enclosure Requirements cont.

A sign containing the following information is required on the outside of the food booth:

- **business name - 3” min letter height**
- **city, state, ZIP code – 1” min letter height**
- **name of the operator – 1” min letter height**

The information needs to be legible and clearly visible to patrons and shall be of a color contrasting with the surface on which it is posted.

Permit to operate must also be posted.

Enclosure Requirements cont.

- **Tables, Counters, and Shelves.** Table, counters, food preparation surfaces, and shelves shall be smooth, easily cleanable, and non-absorbent.

Fully Enclosed Booth Exemption

- The only operations not requiring fully enclosed booths are those which are approved for limited food preparation, sell beverages from approved dispensers, or sell food items prepackaged by a wholesaler or at an approved off-site kitchen.
- Note: Based on environmental conditions, location, or other factors Environmental Health may require full enclosure for Limited Food preparation in order to ensure that foods are safe.

Fully Enclosed Booth Exemption

You may view the presentation on Temporary Food Facility Food Booth Setup at www.solanocounty.com for additional information on enclosure requirements, or contact the Environmental Health Services Division at 707-784-6765 for more information.

Remember that people's lives are in your hands!

Don't Let Life's Celebrations Become Catastrophes!

Questions?